MARICOPA ASSOCIATION OF GOVERNMENTS TELECOMMUNICATIONS ADVISORY GROUP SUGGESTED PRIORITIZATIONS FOR THE 2001 - 2005 TRANSPORTATION IMPROVEMENT PROGRAM

Description	Total	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
FY 1999 PRIORITIZED TRANSP			PROGRAM ITEM					
Small Town Connections	\$135,000	\$75,000		\$30,000	\$30,000			
Facility Upgrades	\$100,000	\$100,000						
Operating Expenses	\$900,000			\$450,000	\$450,000			
Teleconferencing and		\						
Telecommuting Training and								
Marketing	\$2,000,000	\$400,000		\$400,000	\$400,000	\$400,000	\$400,000	
Outreach to Underserved								
Populations /	\$750,000	/ /	7	\$250,000	\$250,000	\$250,000		
Additional Sites	\$1,080,000				\$240,000	\$240,000	\$600,000	
Total	\$4,965,000	\$575,000	/ \$0	\$1,130,000	\$1,370,000	\$890,000	\$1,000,000	
Move existing project timings	/\$0	\$90,000		\$90,000	-\$90,000	-\$90,000		
		/ /				7		
Note: Items in bold italics were	not incorporat	ed into the F	Y2000 - FY2004	TIP 7	_ //			
Ĺ				7 / /				
FY 2000 TRANSPORTATION IM	PROVEMENT P	RØGRAM ITE	EMS /					
Operating Expenses	\$900,000		2	\$450,000	3 / \$450,000 /			
Teleconferencing and								
Telecommuting Program	\$496,000	1	\$496,000					
Teleconferencing and								
Telecommuting Training and					/ /			
Marketing (MAG)	\$600,000				5	\$200,000 10	\$200,000 14	\$200,000
Teleconferencing and								
Telecommuting Training and								
Marketing (RPTA)	\$961,000				8	\$315,000 13	\$315,000 17	\$331,000
Outreach to Underserved								
Populations	\$250,000				9	\$250,000		
Additional Sites	\$840,000				7	\$240,000 12	\$300,000 16	\$300,000
Regional Wide Area Network								
Study	\$300,000		4	\$300,000				
Regional Wide Area Network								
Implementation	\$6,000,000				6	\$2,000,000 11	\$2,000,000 15	\$2,000,000
Scottsdale Telecommuting and								
Transit Center	\$2,459,000						18	\$2,459,000
Total	\$12,806,000	\$0	\$496,000	\$750,000	\$450,000	\$3,005,000	\$2,815,000	\$5,290,000

REPORT: 01-05 TIP - FED FUNDS FOR TELECOMMS

FY MAG 2001-2005 TIP - FEDERAL FUNDING REQUESTS FOR TELECOMMUNICATIONS PROJECTS

TABLE : TIP INPUT 101199

This report contains Telcommunications projects and has been initially sorted by ID number.

ID#	Agency	Location	Type of Work	Miles	CMS Score	Emission Reduction	ER per CMAQ \$	Fund Type	Local Cost	Federal Cost	Total Cost	TAG Rank
MAGFED-27	MAG	Regionwide	Regional WAN Study (FY 2001)					CMAQ	0	300,000	300,000	
MAGFED-28	MAG	Regionwide	Regional WAN Implementation (FY 2003)					CMAQ	0	2,000,000	2,000,000	
MAGFED-29	MAG	Regionwide	Regional WAN Implementation (FY 2004)					CMAQ	0	2,000,000	2,000,000	
MAGFED-30	MAG	Regionwide	Regional WAN Implementation (FY 2005)					CMAQ	0	2,000,000	2,000,000	
MAGFED-31	MAG	Regionwide	MAG telecomms project - operations (FY 2001)			9.00	0.29	CMAQ	0	450,000	450,000	F
MAGFED-32	MAG	Regionwide	MAG telecomms project - operations (FY 2002)					CMAQ	0	450,000	450,000	
MAGFED-33	MAG	Regionwide	MAG telecomms project - training and marketing (FY 2003)					CMAQ	0	200,000	200,000	
MAGFED-34	MAG	Regionwide	MAG telecomms project - training and marketing (FY 2004)					CMAQ	0	200,000	200,000	
MAGFED-35	MAG	Regionwide	MAG telecomms project - training and marketing (FY 2005)					CMAQ	0	200,000	200,000	
MAGFED-36	MAG	Regionwide	MAG telecomms project - outreach to underserved populations (Year 3 of 3)					CMAQ	0	250,000	250,000	
MAGFED-37	MAG	Regionwide	MAG teleconferencing and telecommuting program (additional funds) (FY 2000)					CMAQ	0	496,000	496,000	
MAGFED-38	MAG	Regionwide	MAG telecomms project - additional teleconferencing sites (FY 2003)					CMAQ	0	240,000	240,000	
MAGFED-39	MAG	Regionwide	MAG telecomms project - additional teleconferencing sites (FY 2004)					CMAQ	0	300,000	300,000	
MAGFED-40	MAG	Regionwide	MAG telecomms project - additional teleconferencing sites (FY 2005)					CMAQ	0	300,000	300,000	
MAGFED-41	MAG	Regionwide	MAG/RPTA Telework Outreach Program (FY 2003)					CMAQ	0	315,000	315,000	

ID#	Agency	Location	Type of Work	Miles	CMS Score	Emission Reduction	ER per CMAQ \$	Fund Type	Local Cost	Federal Cost	Total Cost	TAG Rank
MAGFED-42	MAG	Regionwide	MAG/RPTA Telework Outreach Program (FY 2004)					CMAQ	0	315,000	315,000	
MAGFED-43	MAG	Regionwide	MAG/RPTA Telework Outreach Program (FY 2005)					CMAQ	0	331,000	331,000	
SCTFED-05	Scottsdale	Bell Rd: 100th St to Thompson Peak Pkwy	New telecommuting and transit center					CMAQ	158,000	2,459,000	2,617,000	

TOTALS FOR ALL AGENCIES:

LOCAL: \$158,000 FEDERAL: \$12,806,000 TOTAL: \$12,964,000

Project Summary: Second and third year operating expenses for the MAG

Videoconferencing Demonstration Project

Cost: \$900,000

\$450,000 in 2001\$450,000 in 2002

Description:

The current MAG Teleconferencing and Telecommuting Program provides funding to purchase videoconferencing equipment for all MAG member agencies and covers the first year's operating cost and maintenance of that equipment.

A successful videoconferencing system will require a continuing commitment of staff and financial resources on the part of local jurisdictions. To sustain the videoconferencing program there will be ongoing expenses to cover the costs of operating the system, including telephone and line charges as well as maintenance and support of the equipment.

The funds for the second and third year operating expenses will include telephone and line charges for the MAG Videoconferencing Demonstration Project. During that time, local participation in the second and third years expenses may be gradually increased to provide for a less abrupt introduction of local expenses and to allow MAG member agencies time to evaluate the benefits of this demonstration project and plan for ongoing operating expenses in future years.

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

C Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

C Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.

Project Summary: Training, marketing, education and workshops to ensure the successful

outcome of the Regional Videoconferencing Demonstration System

Cost: \$600,000

\$200,000 in 2003 \$200,000 in 2004 \$200,000 in 2005

Prior Funding: \$600,000

\$200,000 in 2000 \$200,000 in 2001

\$200,000 in 2002

Description:

A successful videoconferencing program requires a substantial amount of training for operating and maintaining the videoconferencing equipment, and for ensuring a videoconference is successful. Discussions with other groups that already use videoconferencing have identified training at all levels to be the item most underestimated in the original implementation.

Training manuals for system administrators and end users would be developed and training offered both as "train the trainer" courses and administrator and end user training. Workshops would be held on videoconferencing to benefit not only MAG member agencies, but also other potential users of the videoconferencing rooms and equipment.

Outreach efforts aimed at identifying and promoting expanded videoconferencing applications would be addressed. These efforts should inform and assist member agencies and the wider community in efforts to reduce travel, increase participation in the decision-making process, and allow for more productive use of resources.

Workshops would also be held to inform individuals about such topics as teleconferencing etiquette, preparations that need to be undertaken to set up a videoconference, and the use of ancillary collaborative tools.

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

C Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.

Project Summary: Enhanced outreach to the underserved populations by providing additional

sites and targeting training, marketing, education and workshops to the

general community.

Cost: \$250,000 in 2003

Prior Funding: \$500,000

\$250,000 in 2001 \$250,000 in 2002

Description:

Videoconferencing provides an ideal way to reach out to underserved populations. With the implementation of the new welfare reform program, persons receiving cash assistance are now required to take part in training or secure employment within a two-year period. Statewide and local meetings have documented that the major barriers to successful compliance with welfare reform requirements are the lack of transportation and child care in the region.

The Maricopa County Job Training and Partnership Act Program could use videoconferencing as a method of providing education and training opportunities for cash assistance clients who have transportation barriers to meeting their program requirements. Positioning computers in some of the Community Action Program offices could link essential and mandated services in a surrounding familiar to the client. The Arizona Department of Economic Security, which is responsible for the welfare reform JOBS program, could utilize the teleconferencing technology to transmit the initial mandatory orientation and training materials to sites linked by videoconferencing systems.

Video conferencing could assist welfare clients by providing information on child care centers, rates, hours and other information on-line. The teleconferencing capability could be used for their ongoing training programs by training welfare clients who wish to become child care workers, and by training child care centers on issues related to early childhood development.

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

C Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

C Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.

Project Summary: Additional sites for member agencies to enhance the ability of the entire

Maricopa region, including other public sector and community groups, to

participate in the decision-making process

Cost: \$840,000

\$240,000 in 2003 \$300,000 in 2004 \$300,000 in 2005

Prior Funding: \$250,000 in 2002

Description:

The initial deployment of videoconferencing equipment is designed to link MAG's member agencies by providing each with video conferencing equipment. The initial funding of the Teleconferencing and Telecommuting Program is sufficient for one site per agency. Some of the larger jurisdictions, either in population or in geographic area, may find a need for more than one site, while there may be a geographic desire to provide additional sites for non-members to enhance public access to regional decision making. The funding requested covers the purchase of equipment, operating costs and hiring/contracting with additional staff for additional videoconferencing sites.

The additional sites will also enable MAG and its member agencies to reach underserved populations. This includes those groups who, because of transportation barriers and other disabilities, are unable to attend regular meetings at any of the original sites.

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

C Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

C Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.

Project Summary: Research, training, public relations, marketing, implementation assistance, a web site, participation in a national awareness campaign to support and encourage telecommuting.

Cost: \$946,000

\$315,000 in 2003\$315,000 in 2004\$331,000 in 2005

Prior Funding: \$500,000

\$200,000 in 2000 \$200,000 in 2001 \$200,000 in 2002

Description: See attached description

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

C Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

C Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.

MAG TIP Request Form

REGIONAL PUBLIC TRANSPORTATION AUTHORITY TRANSPORTATION IMPROVEMENT PROGRAM FISCAL YEARS 2001 THROUGH 2005

Agency: Regional Public Transportation Authority	Date: September 24, 1999
Contact Persons: Randi Alcott / Eddie Caine	Phone: 602/534-1802 or 602/5341813
Project Title: Telework Outreach Program	

Please complete the following request form for capital facilities, equipment, and capital cost of contracting requests. Each project in the TIP will require a separate form, including the same project in different years.

I. PROJECT DESCRIPTION

Increase the number of commuters telecommuting or teleworking from six percent to nine percent equaling a total of 103,000 participants by 2003. By initiating a high profile advertising and public relations campaign, the number of telecommuters could increase from six percent to 12 percent equaling a total of 127,760 participants by 2005.

Annual goals are based on estimated telecommuters by the year 2005:

- Increase employer peer-to-peer sharing of the telework concept
- Encourage greater management awareness of the benefits and realities of telework
- Encourage a more broad-based use of technology for trip substitution
- Encourage and support public/private initiatives that encourage telework
- Educate and promote the telework concept of the general public
- Keep pace with advancements in technology designed to improve remote working

Strategies

l. Research

During 2003 and 2005 conduct employer and employee surveys, focus groups, and executive interviews to refine and/or redefine approach to market telework opportunities and uncover the motivating factors for telework opportunities.

II. Employer Assistance, Education and Promotion

- Work in cooperation with a "telework collaborative" to develop state-ofthe-art materials and support tools for telework.
- Provide one-on-one assistance to assist employers in program promotion and implementation.
- Share telecommuting experiences in a peer-to-peer business capacity.
 Offer partnering programs by educating local groups on telework and its business impacts and seeking their support. Groups can include ASPIN, ATIC, GPEC, etc.
- Solicit participants (employers) to adopt a goal of getting a significant percent of their workforce telecommuting by the year 2005.

- Campaigns may include and newspaper advertising; PR efforts involving national/local publications and public affairs programs; promotion via the Internet.
- Offer regularly scheduled RPTA Telecommuting training classes that includes a detailed manual containing sample policy, agreement, survey, and other useful documents.
- Speakers' bureau to address groups with interest in telework.
- Direct mail to management for promotion, education and awareness.
- Offer worksite training for supervisors, telecommuters and nontelecommuters.
- Develop collateral providing information on: telework principles; proximate commuting; and telecommunications in today's business; Project ADOPT; and a guide book on connectivity and local sources for access to telecommunications.

III. General Public Education and Promotion

- By enhancing RPTA's existing <u>web site</u>, we will provide support materials, workshop collaboration and interactive tools via the Internet.
- Campaigns may include radio and TV advertising; PR efforts involving national/local publications and public affairs programs.
- Project <u>ADOPT</u> or other such programs to assist local residents in their search for the necessary technology to encourage trip substitution through remote working.
- Through participation in a <u>Proximate Commute™ program</u>, encourage multi-site employers to allow employees to work at sites closer to their homes.
- Using <u>Telesource Centers</u>, encourage jurisdictions to implement neighborhood resource centers at existing public facilities (i.e., libraries, underused commercial or public facilities) for remote work and electronic access (e.g., Internet & video conferencing).

The **TIP** year which the project is requested. Please note that Federal grant approval is anticipated at the <u>end</u> of the fiscal year in which they appear in the TIP:

Х	FΥ	2003	X F	/ 2004	XF	ŦΥ	2005

II. PROJECT JUSTIFICATION

- There are two phases in the "life" of a telecommuting program the beginning or "planting of the seeds" and its growth. Many companies receive assistance in developing a program, but after it is started the program quickly hits a "ceiling." Without additional assistance or management support, it appears that most programs are unable to grow or expand within an organization.
- It seems that employee pressure or desire and/or meeting Trip Reduction Program (TRP) guidelines (to some extent) are the primary reasons employers allow telecommuting. However, it also appears that without support from upper

management, telecommuting programs tend to flounder. They remain limited in scope or fail to expand to the degree hoped for by transportation coordinators. Thus while many programs are getting off the ground initially, a lack of support from upper management impedes the success of a program.

- Organizations cite management issues such as trust, control, resistance to change,
 and perceived "fairness" as hindering the success of telecommuting. This lack of support may be attributed to management's concern over employee productivity and performance leaving them with a perception that it is impossible to effectively manage telecommuters.
 - Informal telecommuting programs appear to be the norm in the Valley. In general,
 most organizations are not using pilot programs, telecommuting is worked out on a
 "case by case" basis, there are no formal methods of reviewing or monitoring
 employee productivity and companies do not appear to have a formal procedure in
 place to evaluate the program's success.
 - Only 20% of employees report that they telecommute under a formal policy. They
 mentioned the use of agreements, general contracts, policies and a trial period as
 elements of their programs. These elements appear to have been present at the
 start of the program, but it is unclear if the policies remain in place as time moves
 forward.
 - More than half of employers interviewed on the phone who currently allow or plan to allow telecommuting say they initially used or will use a formal pilot program. However, very few organizations that participated in a focus group and currently allow telecommuting reported the use of a formal pilot program. It may be that those planning to allow telecommuting believe they will use a program but in reality few are.
 - There seems to be a misperception among employers and employees that the technology and equipment needed for telecommuting is extensive and expensive. As a result, this is often seen as a major obstacle in setting up or expanding a telecommuting program. While employers feel they will need to equip telecommuters with printers, telephones and fax machines, many employees who telecommute say they are providing their own equipment. Those who do not currently telecommute often indicate a willingness to use their own equipment as well. More than three in five Valley telecommuters (63%) use their own equipment when working from home.
 - Overall the sentiment is that telecommuting supporters within organizations need assistance convincing upper management of the value of telecommuting. They feel that management needs to be shown solid facts and figures and hear testimonies of success from similar organizations. Many feel that financial data demonstrating the positive impact of telecommuting on similar companies would be highly influential. Financial assistance and direct assistance were also thought to be key forms of external assistance.
 - Without this type of assistance, telecommuting supporters do not feel they will be

able to gain the management support needed to expand their programs past the current "informal" and "case by case" basis that is currently the norm. It seems that supporters need to be able to show management that telecommuting is more than just a tool to accommodate a few employees in unique situations. They need help demonstrating the positive benefits of telecommuting for the organization on a broad basis.

below and not the year the project will be noted in the $\pi\pi$.

Fiscal Year	2003	2004	2005	TOTAL
TOTAL COSTS	\$315,000	\$315,000	\$331,000	\$946,000

IV. FUNDING COMMITMENT

AUTHORIZED SIGNATURE			
COMMENTS: (approval of this request	t does not guarant	ee federal funding for proje	cts)
☐ APPROVED AS REQUESTED	☐ APPROVED	AS MODIFIED BELOW	☐ DENIED
VI. APPROVAL FOR INCLUSION		office use only) Project Prioritization	on
No Local funds are necessary for this SIGNATURE OF APPECANT (certifying availability of local match)	project.		
associated with the capital project.			

Project Summary: A new telecommuting/transit center in the City of Scottsdale at Bell Road,

South side, between 100th Street and Thompson Peak Parkway.

Cost: \$2,617,000

Description: This area of the region will be advantageously supported by a telecommuting center,

augmented by express bus service. Area residents will be able to take advantage of telecommuting at the center or take a bus to downtown or other area employment centers. This facility will serve primarily the rapidly growing McDowell Mountain Ranch communities, dovetailing with the technologically "wired" growth that is

occurring in this area.

See attached.

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

C Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

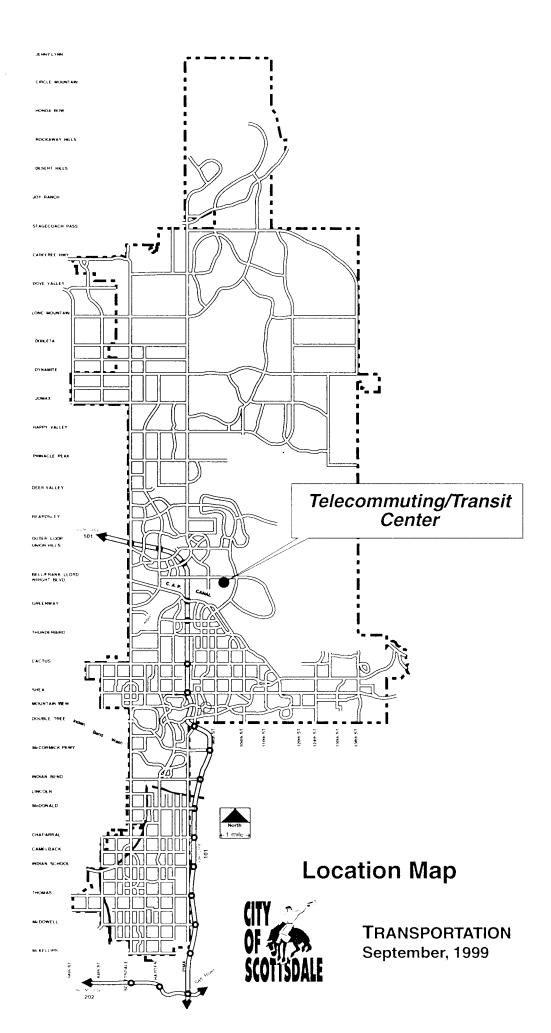
C Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.

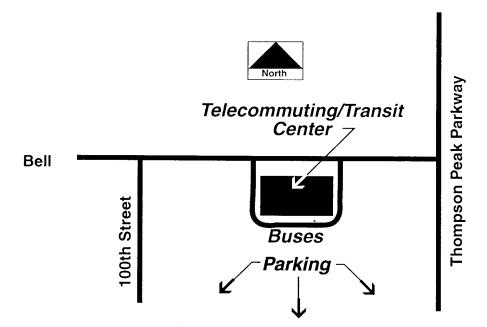
FY 2001-2005 MARICOPA ASSOCIATION OF GOVERNMENTS TIP PROJECT INFORMATION FORM - PAGE 1 OF 2 *** THIS FORM MAY BE USED FOR ALL PROJECTS ***

Agency :	SCOTT	SDALE		Proj #:				
Location :		D, SOUTH SIDE PSON PEATT PA		IOUTH ST AND				
Worktype: NEW TELECOMMUTING / TRANSIT CENTER								
FY:		Section : 5	Township: 3	Range: $5E$				
Length :	Status : NEW Reg Sig :			Mgmt Sys: CONGESTEN				
Continuity :	NONE	Mode: OTHER	Fund Type: CMAQ					
Local :	158,000	Federal: \$ ⊋	,459,000	Total: \$2,617,000				
General Street Project Details: Accidents :								
Lanes Bef :		Lanes Aft :		Curbs :				
Access:	0	Shoulder :	0	Pave Dirt :				
Signal Loc :	0	Signal Reg :	0	Land Use :				
Road of Re	gional Sigı	nificance or Freewa	ay Details:	RRS/Fwy:				
FMS:	0	HOV:	0	Landscape: /				
	Alternative	e Modes Details:		Bus Pull : /				
Bike Plan :	U	Bike Up:	0	Ped:				



TELECOMMUTING/TRANSIT CENTER

This area of the region will be advantageously supported by telecommuting center, augmented by express bus service. Area residents will be able to take advantage of telecommuting at the center or take a bus to downtown or other area employment centers. This facility will serve primarily the rapidly growing McDowell Mountain Ranch and DC Ranch communities, dovetailing with the technologically "wired" growth that is occurring in the area.





transit / telecommuting center

Bell Rd, between 100th St. and Thompson Peak Parkway

ltem	Number	Amount	Unit	Unit Cost	Total
Construction Costs		·		·	
Private Offices	3	120	sf	\$150	\$54,000
Cubicles	8	110	sf	\$120	\$105,600
Kitchen	1	260	sf	\$150	\$39,000
Restroom	2	320	sf	\$240	\$153,600
Manager's Office	1	130	sf	\$150	\$19,500
Ticketing	1	380	sf	\$150	\$57,000
Mechan/Electric	1	260	sf	\$120	\$31,200
Breakroom	1	260	sf	\$160	\$41,600
Rental office	1	380	sf	\$160	\$60,800
Police beat room	1	180	sf	\$160	\$28,800
Covered walkway	1	360	sf	\$100	\$36,000
Hallways	25%	of above	sf		\$156,775
Storage/Ancillary	39%	of above	sf		\$244,569
Total sq footage		2099			
Subtotal					\$1,028,444

Equipment Costs				
Kitchen Appliance	4	ls	\$600	\$2,400
Computers	12	İs	\$2,500	\$30,000
Printers/Plotters	3	ls	\$4,000	\$12,000
Signage	1	ls	\$50,000	\$50,000
FFE	1	ls	\$30,000	\$30,000
Videoconference	1	ls	\$10,000	\$10,000
Subtotal				\$134,400

Outside Amenities								
Parking	15	400	sf	\$3	\$18,000			
Bus driveway	1	100000	sf	\$3	\$250,000			
Telephone	1		ls	\$10,000	\$10,000			
Electric Service	1		ls	\$150,000	\$150,000			
Water sewer servic	2		ls	\$20,000	\$40,000			
Developemnt fees	1		ls	\$35,000	\$35,000			
Site Lighting	22		ls	\$3,500	\$77,000			
Hardscape	1	40000	ls	\$3	\$120,000			
Landscaping, etc.	1		ls	\$40,000	\$40,000			
Subtotal	•				\$740,000			

Other Expenses							
design		of above	- 14 Mar	Burn Age	\$475,711		
Contingencies 55.	10%	of above	建筑 设计。	V 1	\$237,856		

Grand Total \$2,616,4

Onto (Ambrille)					
1/00/1900			57/0001	MAN STATEMENT	
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Sovered shellers		÷)+	£20,000	\$80:000E	
AAA .			626,000}	\$26,000	
Off site improvement			\$100,000	\$100,000	
newpopertock de la		27	6Z.000	##4\$7.000	
Sub Joiol 2			HARLE M	£6222.000L	

Project Summary: Regional Wide Area Network Study to identify wide area network opportunities

for and prepare a plan for implementation of the network

Cost: \$300,000 in 2001

Description: Videoconferencing is quickly moving from a telephony-based topology to an Internet Protocol (IP)/Asynchronous Transfer Mode (ATM) H.323 technology. H.323 will

be used more and more in use in the future as a controlled WAN technology, meaning the attributes of the IP network can be defined to fulfill the needs of data,

voice and video transfer.

For a business-quality real-time communications to take place, a minimum of 384 Kbps is needed. This must be guaranteed bandwidth; currently there is not a way to guarantee this throughput with the Internet. As quality of service standards and the Internet II evolve, it will be possible to take advantage of this medium.

The Gartner Group (1998) predicts that:

- ► IP/ATM will supplant circuit-switched networks as the preferred method for transporting audio and video beginning in 2001 (0.75 probability).
- ► The next-generation Internet will have the necessary robustness to support twoway audio and video by 2001. (.7 probability)

The MAG Telecommunications Advisory Group and the MAG Intelligent Transportation Systems Committee both have numerous needs for fast real-time communications. A number of jurisdictions are already identifying the need for such network media as fiber optics cable. This study will identify what is currently being done, what will likely be done in the future, provide a recommendation for future regional wide area network activities, and prepare an implementation plan to be used to direct future implementation. This project is intended to be a joint regional project from both committees.

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

C Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

 \mathcal{C} Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.

Project Summary: Regional Wide Area Network Implementation to implement the plan developed in the Regional Wide Area Network Study

Cost: \$6,000,000

• \$2,000,000 in 2003

• \$2,000,000 in 2004

• \$2,000,000 in 2005

Description:

The MAG Telecommunications Advisory Group and the MAG Intelligent Transportation Systems Committee both have numerous needs for fast real-time communications. A number of jurisdictions are already identifying the need for such network media as fiber optics cable.

The Regional Wide Area Network Study will have identified what is currently being done, what will likely be done in the future, provided a recommendation for future regional wide area network activities, and prepared an implementation plan to be used to direct future implementation.

This project will implement the results of the study. The project is intended to be a joint regional project from both committees.

Relevant Guidelines:

REGIONALISM: Focus regional funds on meeting regional needs.

C Support regional programs to reduce travel demands

MULTIMODALISM: Support a multimodal transportation system.

C Support regionally significant telecommuting, teleconferencing, and teleworking projects.

AIR QUALITY: Support effective projects to meet air quality standards.

C Support programs which reduce pollution caused by vehicular travel

CONGESTION: Focus funds to reduce congestion

HUMAN SERVICE NEEDS: Support transportation projects that address the needs of underserved populations.